

**REMARKS**

Claims 1-2, 5, 12-13, 30 and 33 are pending in this application and claims 3-4, 6-11, 14-29, 31-32 and 34-35 are withdrawn. By this Amendment, claims 3-4 and 6-11 are amended for clarification purposes. Reconsideration of the application is respectfully requested.

The Office Action indicates that claims 3-4 and 6-11 would still have antecedent basis problems even if they were rejoined (Office Action, page 10, lines 11-16). These claims are amended to overcome this issue and now would not present antecedent basis problems if rejoined.

The Office Action rejects claims 1-2, 5, 12-13, 30 and 33 under 35 U.S.C. §103(a) over Hirakawa et al. (U.S. Patent No. 6,097,358) in view of Tanaka et al. (U.S. Patent No. 6,052,112). The rejection is respectfully traversed.

In particular, none of the applied references, alone or in combination, disclose or suggest a driving method of a liquid crystal element and associated driving device, the driving method including sequentially selecting a plurality of first sub-field periods continuous with respect to one another and a plurality of second sub-field periods continuous with respect to one another, wherein the plurality of second sub-field periods substantially corresponds to a length of a sum of the plurality of first sub-field periods, as recited in independent claim 1 and similarly recited in independent claim 30.

Hirakawa teaches a method for driving an AC driven PDP to produce gradation display by dividing a field into at least three sub-fields in time sequence, each of the sub-fields having a weighted luminance and being provided with an address period for selecting a cell to emit light for display and a sustained period for sustaining a light emitting state (Abstract).

Tanaka teaches a sub-field array formed by providing a sub-field corresponding to an m-th bit sub-field bit substantially at the center of the time axis of all the sub-field periods, and providing the other sub-fields than the m-th significant one on the opposite sides of and substantially in line symmetry with respect to the m-th significant bit sub-field (Abstract).

The Office Action admits that Hirakawa teaches that a weighted luminance of each of the sub-fields of the second sub-field group is an integer multiple of the minimum weight and equal to one plus the total sum of the weight smaller than themselves in the first group, and that this weighted luminance is a number of discharges, and is not a sub-field (Office Action, page 9, line 21 - page 10, line 7). However, the Examiner asserts that each discharge must necessarily and inherently constitute a length of period because a discharge requires a certain period of time to execute. Although a discharge does require a period of time, Applicants respectfully disagree with the implication that luminance weight and discharge time are proportional.

There is no proportional relationship between the weight of the discharge and the amount of time necessary to perform the discharge. In other words, if a weighted luminance of one takes a certain period of time, it is not true that a weighted luminance of five takes five times the period of time necessary for the weighted luminance of one. Accordingly, the relationship outlined in Hirakawa between the respective weights of luminance of the sub-field groups SFG-2 and SFG-1 does not represent a relationship of periods of time, but only represent a relationship of weighted luminance. Thus, Hirakawa fails to disclose or suggest that each of the plurality of second sub-field periods substantially corresponds to a length of a sum of the plurality of first sub-field periods, as recited in independent claim 1 and similarly recited in independent claim 30. In fact, Fig. 3 of Hirakawa indicates that the sustained periods TS of the sub-field group 2 are identical to the sustained periods TS of the sub-field 1.

Furthermore, Tanaka fails to cure deficiencies in Hirakawa in disclosing or rendering obvious this feature.

For at least these reasons, independent claims 1 and 30, and their dependent claims, are patentable over a combination of the applied references. Thus, withdrawal of the rejection of the claims under 35 U.S.C. §103(a) is respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-2, 5, 12-13, 30 and 33 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff  
Registration No. 27,075

Tarik M. Nabi  
Registration No. 55,478

JAO:TMN/amw

Date: May 1, 2006

**OLIFF & BERRIDGE, PLC**  
**P.O. Box 19928**  
**Alexandria, Virginia 22320**  
**Telephone: (703) 836-6400**

DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461
--